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(54) POLISHING PAD FOR SEMICONDUCTOR WAFER, AND MANUFACTURE OF SEMICONDUCTOR DEVICE

(57) Abstract:

PROBLEM TO BE SOLVED: To prevent the generation of a difference of polishing rate between a central part and peripheral parts of a polishing pad by forming a part of the pad, which contacts with a central part of a wafer, with plural radial grooves directed from a central part to the periphery, and forming at least a part of the pad, which contacts with the peripheral part of the wafer, with plural circular grooves concentrically with the polishing pad.

SOLUTION: A semiconductor wafer polishing pad 22 is formed of a disk-like independent foaming body, and a front surface of a polishing surface thereof is formed with multiple circular grooves 24 concentrically with the polishing pad 22, namely, record-like narrow circular grooves

24. A part of the pad, which contacts with a central part of a wafer, is formed with plural radial grooves 26 directed from a central part toward the periphery. Width of the part formed with the radial grooves 26 is formed at about 1/2 of the diameter of the wafer. A first insulating film is formed on a semiconductor board having an active element, and continuously, a first metal film is formed. Continuously, a silicon oxide film is formed as a layer-to-layer insulating film by the CVD method. Thereafter, the layer-to-layer insulating film is polished for flattening by the CMP method using the polishing pad 22.